Appendix D3

Area of Origin Protections and Implementation of Critical Management Areas

AREA OF ORIGIN PROTECTIONS AND IMPLEMENTATION OF CRITICAL MANAGEMENT AREAS □EMERGING WATER MANAGEMENT TOOLS FOR PROTECTING PUBLIC WELFARE

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* The authors are greatly indebted to Susanne Hoffman-Dooley for her work in authoring *Preventing Urban Thirst from Wilting Rural Economies: Area-of-Origin Protection in the Western United States* (Spring 1996). Ms. Hoffman-Dooley's work is quoted extensively throughout, and was a very useful resource in examining the complex area of origin issues.

WORKING DRAFT

INTRODUCTION

The Jemez y Sangre Water Planning Council is in the final stages of preparing the regional water plan which will address the hydrogeologic, legal, environmental, and public welfare issues of the planning region.[1] In order to fully analyze the public welfare aspect of the regional water plan, two water management tools must be examined. Those tools–Area of Origin protections and the implementation of Critical Management Areas–are the focus of this paper. The purpose of this paper will be to define the two tools, with a particular focus on the public welfare[2] implications of each; and to describe ways in which each tool can be implemented. This paper will not make a recommendation as to whether Area of Origin protections or Critical Management Areas should be implemented in the planning region, since such decision-making must be a collaborative process. Instead, the paper will present options for consideration.

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[1] The Jemez y Sangre Planning Region includes the areas between the Jemez Mountains on the west and Sangre de Cristo Mountains on the east. The area includes the northern two-thirds of Santa Fe County, all of Los Alamos County and the southern portion of Rio Arriba County from Embudo to the south.

[2] The relationship between regionally water planning and public welfare was succinctly described by two commentators: "Water planning initiatives mandated by New Mexico law had their genesis over thirteen years ago. Their initial intent was to protect New Mexico's waters from expropriation by other states (notably Texas). In 1987, a federal court . . . ruled that New Mexico's attempt to place an embargo on exporting water to other states was unconstitutional. In response, the New Mexico legislature amended several water statutes. The changes included giving the State Engineer authority to deny an application if it is *contrary to conservation* or *detrimental to the public welfare* of the state. These criteria, significantly, apply to all appropriations and transfers, not just interstate transactions. The legislature also enacted law establishing a process for locally organized regional water planning. The rationale behind this is that if New Mexicans can prove their own citizens' need for water, the state can defend itself against attempts by other states to appropriate its water for use elsewhere. The process emphasizes public participation to determine what the public welfare may mean for each region, and how it can be best protected." Brown and Rivera, *Acequias de Comu´n: The Tension Between Collective Action and Private Property Rights*, IASCP 2000, pp. 15-6.

AREA OF ORIGIN PROTECTIONS

I. Introduction.

In New Mexico, a water right is a property right, which if certain criteria are met, may be transferred and sold.[3] The State Engineer will approve the transfer of a water right from its area of use if such transfer to a new area and/or new purpose of use (1) does not impair existing water rights, (2) is not contrary to the conservation of water, and (3) is not detrimental to the public welfare.[4] Although arguably the public welfare component of the transfer section could be interpreted as allowing the protection of the area from which water is proposed to be transferred to or from, such provision can only be utilized in a case by case basis, as individual transfer applications are before the State Engineer for review.

Historically, cities and towns were located near water supplies. Through growth, these municipalities have exceeded their existing supplies of water, and need to augment their water supplies, often through the purchase and transfer of agricultural water. In New Mexico, as more and more water resources are transferred from agricultural use to urban use, an issue arises as to whether legal restrictions should be implemented to prevent the transfer of water from its "area of origin" to uses outside of such area. In general, such restrictions are opposed by entities seeking to augment their water supplies (such as

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3 *KRM v. Caviness*, 1996 NMCA 103, ¶ 8, 122 N.M. 389, 391 (1996).

4 NMSA 1978, §§ 72-5-24 (1907), 72-5-3 (1907), 72-12-3 (1931), 72-12-7 (1931).

municipalities), and are looked upon favorably by areas of origin that fear the loss of future water supplies (such as acequias).[5]

II. Area of Origin and Public Welfare.

Area of origin protections are protections put in place to protect values not adequately protected in the free market. As explained by one commentator:

> Public values are values that are unlikely to be taken into account by private transactions in the market process. In the water resources area, these values include the unique importance of social and cultural values generated by water, the important instream values that are not protected by property rights, external costs imposed directly on other parties due to jurisdictional boundaries that relieve water users of liability for damage, and the "secondary economic impacts" imposed on areas of origin, especially agricultural communities when agricultural water use is substantially reduced. The importance of these values, in the case of water transfers, implies that market-based transactions in water are likely to generate inefficiencies and inequities to a greater extent than market-based transaction in other sectors of the economy.[6]

Such public values, of course, are evident in northern New Mexico's acequia communities where the acequia not only plays a part in supporting local agricultural, but also a part in providing for community cohesion through shared maintenance of the ditches and canals, and shared distribution of water. These public values were recognized in a New Mexico trial court decision, where the court denied a transfer of an acequia water right to a commercial use at a ski basin. Although the trial court was reversed on appeal, the court's pronouncement on cultural values exemplifies the conflict inherent in transfer of water away from traditional uses: "It is simply assumed by the applicants that greater economic benefits are more desirable

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[5] Deason, Schad, and Sherk, *Water Policy in the United States: a perspective*, Water Policy 3 (2001), 175-192, p. 183.

[6] *Protecting Public Values in a Water Market Setting: Improving Water Markets to Increase Economic Efficiency and Equity*, 3 U. Denv. L. Rev. 357, 361 (Spring, 2000).

than the preservation of cultural identity. This is clearly not so... I am persuaded that to transfer water rights, devoted to more than a century to agricultural purposes, in order to construct a playground for those who can pay is a poor trade indeed."[7]

III. Area of Origin Protections.

A number of western states have legislatively enacted area of origin protections. In New Mexico, although there are several existing statutes in place which could perhaps provide limited area of origin protections (see discussion of public welfare, above, and discussion of reservation, below) any full scale area of origin protections would have to be enacted legislatively. Area of origin statutes in other states fall within the following nonexclusive categories: (1) prohibition or restriction against area of origin transfers; (2) the right of recapture and reservation; and (3) compensation.[8] This section will discuss each type of protection, and generally discuss potential advantages and disadvantages of each type of protection.

A. Prohibition or Restriction.

Clearly, the most restrictive area of origin protection would be a blanket prohibition against any transfer out of the area of origin.[9] For example, California prohibits the state from transferring state-held appropriations if the transfer will deprive the county in which the water originates (the exporting county) of water the exporting area needs for development.[10] Other states have imposed restrictive conditions

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[7] *In re Howard Sleeper et al.,* Rio Arriba County Cause No. RA 84-53(C) (N.M. Div. 5, First Judicial Dist. April 16, 1985).

[8] Deason, Schad, and Sherk, *supra,* p. 183.

[9] An "area of origin" can be defined in several ways–either by basin, sub-basin, or by county.

[10] Cal. Water Code § 10505.

which, while not blanket prohibitions, have the effect of limiting area of origin exports. These restrictions include obtaining the consent of affected water users prior to the approval of a transfer (which effectively gives a veto right over such transfers); denying transfers if the agricultural base of the area of origin would be significantly affected; and considering the economic loss to the exporting community, and the extent to which the loss will be offset by the new use.[11]

An absolute prohibition against transferring water out of an area of origin would clearly benefit those who believe that such prohibition is necessary to maintain certain cultural values. Nonetheless, such protection of values must be weighed against the economic benefits which may be obtained by allowing such transfers. As one commentator explained: "Restrictions or prohibition of transfers from a basin of origin is the most extreme form of protection. Restriction is detrimental to economic efficiency which seeks to maximize the total value of output produced from water use. In order to achieve the goal of maximum economic use of water, allocation of available water among different uses and locations should not be static. Flexibility over time to respond to changing demands and values prevents water from being artificially locked into sub-optimal use patterns or marginal uses. Prohibition or restriction of exports of water are detrimental to these goals."[12]

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[11] See Susanne Hoffman-Dooley, *Preventing Urban Thirst From Wilting Rural Economies: Area-of-Origin Protection in the Western United States* (Spring 1996), pp. 13-16 for a discussion of various area of origin restrictions imposed by states.

[12] *Id.*, p. 6 (citation omitted).

Further, there is an issue as to whether such a blanket prohibition on transferability would be constitutional. Since a water right is a property right, a state-imposed absolute prohibition on selling such right may be deemed an unconstitutional taking of a property right.[13]

B. General Permit Requirements.

An area of origin can also be protected against burdensome water exports by conditioning permits allowing such transfers. These permit requirements include (1) establishing rights of recapture or priority rights for areas of origin; (2) reservation of water for areas of origin; and (3) compensation.

1. Rights of Recapture.

A "right of recapture" allows an exporting area to "recapture" transferred water, if it is determined that the transferred water is necessary for economic development of the area of origin. In other words, when the exported water is necessary for beneficial use within the area of origin, it is withdrawn from the importing area and again made available to the area of origin.[14] As one commentator notes, in describing a California statute allowing a right of recapture, the "provision greatly benefits local inhabitants because it in effect creates an inchoate priority right in appropriators from the area of origin whenever they need the water, which supersedes the priorities of water exporters."[15]

One prominent issue with the right of recapture is the inability of the entity importing the water to have absolute certainty in the long-term availability of the water initially imported. In essence, recapture employs some of the same concepts at work with water banking–that is, it allows for (perhaps) only the

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13 *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003 (1992).

14 Hoffman-Dooley, *supra*, p. 19 (citation omitted).

15 *Id.*

temporary use of water. As such, the uncertainly of the water supply must be reflected in the pricing of water which is subject to recapture.

2. Reservation.

Reserving water for future use within an area of origin is another mechanism which can be used to protect water. Conceptually, through a reservation, a certain amount of water will be set aside, or reserved, for future use of the area of origin. One commentator rightfully questions whether allowing such reservation would conflict with the constitutional requirement in New Mexico and other western states that water be put to beneficial use.[16] Nonetheless, New Mexico has essentially allowed the "reservation" of water by allowing for extensions of time in which to put water to beneficial use (and therefore forestall a claim of abandonment or forfeiture),[17] and by allowing a 40 year planning window for municipalities and universities.[18] Arguably, New Mexico already has a specific reservation statute in place. NMSA 1978, § 72-5-29 (1909) states:

> To the end that the waters of the several stream systems of the state may be conserved and utilized so as to prevent erosion, waste and damage caused by torrential floods, and in order that the benefits of the use of such waters may be distributed among the inhabitants and landowners of the country along said streams as equitably as possible without interfering with vested rights, the natural right of the people living in the upper valleys of the several stream systems to impound and utilize a reasonable share of the waters which are precipitated upon and have their source in such valleys and superadjacent mountains, is hereby recognized, the exercise of such right, however, to be subject to the provisions of this article.

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16 *Id.*, p. 36; N.M. Const. Art. XVI, Sec. 3.

17 NMSA 1978 §§ 72-5-14 (1907), 72-12-8 (1931).

18 NMSA 1978, § 72-1-9 (1985); Susanne Hoffman-Dooley, *supra,* p. 36.

Although seemingly allowing for a right of upstream water users to reserve water, such reservation is subject to vested rights. Since stream systems in the planning region are fully appropriated, this statute most likely has limited value for a establishing a right of reservation.

3. Compensation.

Compensation allows the area of origin to recoup, in either monetary or other forms, losses caused by the exportation of water. Compensation can take different forms, and several states have enacted compensation statutes. Forms of compensation include monetary compensation,[19] payment of lost property taxes,[20] development of facilities for local areas and needs,[21] development of compensatory storage facilities,[22] and payment for property value diminution.[23]

Determining adequate compensation must be determined by a careful examination of the impact of the water loss to the exporting community. As one commentator noted, communities absorb the economic costs when water is transferred from the community, often with great hardship. Since these costs are often not taken into account by water buyers and sellers, "it would be appropriate, therefore, from both efficiency and equity viewpoints that buyers and/or sellers make compensatory payments to public

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[19] For example, Oregon allows transbasin diversions by irrigation districts upon payment of adequate compensation. *See, Deason, Schad, and Sherk, supra,* p. 184.

[20] Hoffman-Dooley, *supra.*, p. 22; Ariz. Rev. Stat. Ann. § 45-472 (1987).

[21] Hoffman-Dooley, *supra.*, p. 23; Cal. Water Code § 12934, § 12938.

[22] Hoffman-Dooley, *supra*, pp. 24-5 (citations omitted).

[23] *See* Deason, Schad, and Sherk, *supra.*, p. 184.

authorities in the area of origin."[24] Compensation is an attractive area of origin protection, since it allows for the movement of water within the available market, while attempting to protect interests within the area of origin.

IV. Conclusion.

A three part test has been developed to evaluate the impact of water exportation on an area of origin. First, the proposed diversion should be the least expensive water for the importer. Second, the benefits to the importing basin should exceed total costs (costs to the area of origin, plus costs to the importing area of construction, operation, and maintenance.) Third, no one should be made worse off as the result of the diversion.[25] Although a fairly simple test, issues arise in measuring all of the attendant costs to a transfer, both economic and otherwise. In the planning region, it will be critical for all costs to be fairly measured and assessed.

CRITICAL MANAGEMENT AREAS

Another measure of public welfare within the planning region may be the value placed on protecting the groundwater resources of the region. If it is determined that the groundwater resources of the region are or may be inadequate for sustained well protection, the planning region can request that the State Engineer implement a Critical Management Area (CMA) or Areas for the region. A CMA can be implemented through an Order of the State Engineer, whose powers are broad enough to allow such

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[24] *Protecting Public Values in a Water Market Setting: Improving Water Markets to Increase Economic Efficiency and Equity, supra* at 371.

[25] Deason, Schad, and Sherk, *Water Policy in the United States: a perspective, supra*, p. 184.

implementation.[26] Both the Middle Rio Grande and Estancia Basins have CMAs,[27] which are instructive in examining whether the region, or portions of the region, should be designated as CMAs.

CMAs are generally areas which deserve special attention because the water resources may be inadequate for sustained well production.[28] Therefore, CMAs are used to protect existing water rights and extend the life of the underground water sources within the basin in which the CMA is located. For example, CMAs in the Estancia Basin are defined as all aquifers with average long-term water level declines greater than 1.50 feet per year, or those areas of the valley-fill aquifer with less than 80 feet of remaining saturation by the end of the year 2040.[29] Likewise, in the Middle Rio Grande Administrative Area, the CMA has been defined as an area with excessive water level decline rates, and generally includes areas in which "the model-predicted water level declines, due to the exercise of existing permits, exceed an average rate of 2.5 feet per year through the year 2040; and those areas in which the current observed rate of water level decline exceeds an average of 2.5 feet per year."[30]

The State Engineer has restricted well drilling in both the Middle Rio Grande and Estancia Basin CMAs. In the Middle Rio Grande CMA, the State Engineer will only accept applications to replace,

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[26] NMSA 1978, §§ 72-2-1 (1907), 72-2-8 (1967).

[27] *Middle Rio Grande Administrative Area Guidelines for Review of Water Right Applications* (Sept. 13, 2000); *Estancia Underground Water Basin Guidelines for Review of Water Right Applications* (June 20, 2002).

[28] *Estancia Underground Water Basin Guidelines for Review of Water Right Applications*, p. 23.

[29] *Id.*

[30] *Middle Rio Grande Administrative Area Guidelines for Review of Water Right Applications*, p. 6.

repair, deepen, or supplement an original well, or applications for domestic wells.[31] In the Estancia Basin, CMAs are protected by (1) denying applications for new appropriations of water, (2) denying additional appropriations within the CMA due to changes in location of well and place and purpose of use from sites located outside the CMA, and (3) limiting water level declines upon the CMAs from proposed non-CMA wells associated with certain types of applications.[32] Neither the Middle Rio Grande nor Estancia Basin prohibit the drilling of domestic wells within CMAs.

In the planning region, one or more CMAs should be considered if a hydrologic determination is made that the water resources within the region cannot sustain the current level of groundwater development. In making this determination, issues of water quality may need to be considered. Water contamination can potentially cause either a decrease in the available water supply, or make capturing the supply more costly, due to clean-up costs.[33]

If one or more CMAs are considered for the region, hydrologic modeling will have to be conducted to determine which areas are stressed. Then, a determination must be made as to the level of prohibition demanded for the CMA. Clearly, the State Engineer has broad powers to administer the waters of New Mexico, and as such can order the imposition of one or more CMAs for the region, and restrict water use within the CMA, if such restrictions are hydrologically sound, and needed to protect existing water users, and the groundwater resources within the region. Restrictions could include, but are not limited to,

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[31] *Id.*, p. 7.

[32] *Estancia Underground Water Basin Guidelines for Review of Water Right Applications*, pp. 6, 9.

[33] If issues of water quality are considered in developing a CMA, issues of the jurisdiction of the New Mexico Environment Department in establishing a CMA will have to be considered.

prohibiting the drilling of new wells, including domestic and municipal wells; limiting the diversion amounts on new and existing domestic wells; requiring metering of all groundwater diversions, with a mandatory reporting requirement; and regulating septic tanks to decrease groundwater pollution.[34]

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[34] *See* footnote 33.